

XSTREAM-PKG

WIRELESS MODEM

The XStream-PKG was designed to provide end users with an easy to install wireless communication link between equipment.

This radio comes equipped with the features of our 9XStream or our 24XStream radios. Systems integrators love the functionality provided by the serial connection, switch, indicator lights, high quality antenna, mounting plate and flexible power supply inputs.

When ordered with the 9XStream specifications, this radio has the best sensitivity in the industry for low cost, making it one of the longest range radio modems available to date.

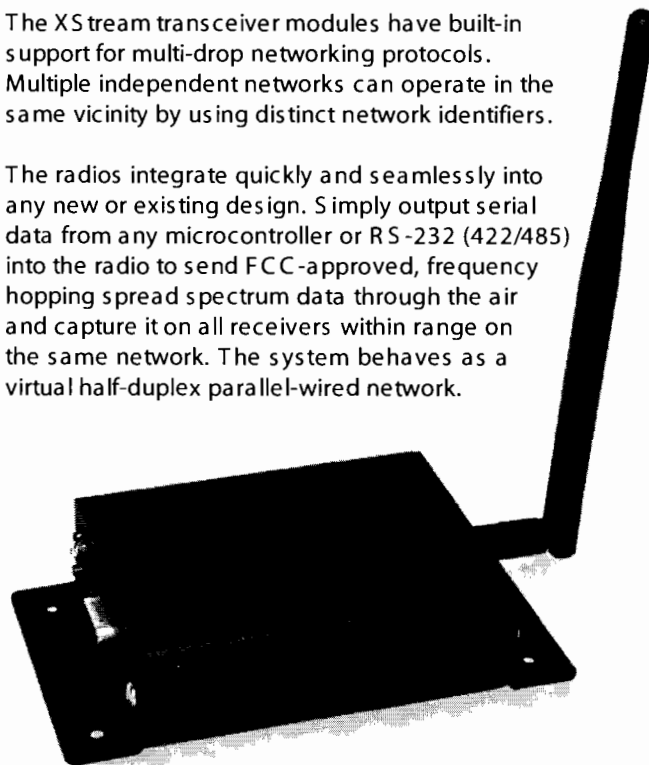
When ordered with the 24XStream specifications, this radio can provide high performance and dependable operation for applications throughout the world.

The 9XStream wireless modem transfers data at 9600 or 19200 baud up to 1/4 mile in a city environment or greater than 7 miles line-of-sight with a directional antenna.

This radio is perfect for applications in supervisory control and data acquisition (SCADA), remote meter reading, home automation, security, instrument monitoring, point of sale systems (POS) and a myriad of other applications.

The XStream transceiver modules have built-in support for multi-drop networking protocols. Multiple independent networks can operate in the same vicinity by using distinct network identifiers.

The radios integrate quickly and seamlessly into any new or existing design. Simply output serial data from any microcontroller or RS-232 (422/485) into the radio to send FCC-approved, frequency hopping spread spectrum data through the air and capture it on all receivers within range on the same network. The system behaves as a virtual half-duplex parallel-wired network.



Features

- Best sensitivity in industry for low cost and extended transmission range.
- Low power consumption. Suitable for battery powered applications.
- Small size.
- Easy to integrate. No knowledge of RF necessary. Simple networking protocol.
- Standard serial digital interface. Interfaces with any microcontroller.
- Reliable data transfer performance.
- Choice of integral or separate external antennas.
- FCC-approved with no further licensing or approval required.

MaxStream™
Exceeding your wireless expectations.

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9XStream-PKG Specifications

General

Radio Frequency	902-928 MHz, unlicensed IS M band
Type	Frequency Hopping Spread Spectrum Transceiver
Frequency Control	Direct FM
Network Topology	Point-Multipoint and Point-to-Point Multi-Drop Transparent Networking
Channel Capacity	65,000 Network Identifiers share 25 hop channels
Serial Data Interface	RS-232 (422/485 available), DCE
I/O Data Rate	Software selectable 2400-57,600 bps, 1200 bps available

Performance

	9XSTREAM-96	9XSTREAM-192
RF Baud Rate	10,000 bps	20,000 bps
Data Throughput	9600 bps	19200 bps
Transmit Power Output	100 mW nominal	100 mW nominal
Rx Sensitivity	-110 dBm	-107 dBm
Range*	Indoor: 600' to 1500' Outdoor: 7 mi. with dipole, >20 Mi. with gain antenna	
Interference Rejection	70 dB at pager and cellular phone frequencies	

*Range calculations are for 9600 baud radio, line-of-sight. Actual range will vary based upon specific board integration, antenna selection, environment and the OEM's device.

Power Requirements

Supply Voltage	7-18 VDC
Current Consumption	Tx 210 mA, Rx 70 mA, Power Down <10 μ A

Physical Properties

Enclosure Size	2.75" x 5.50" x 1.12" (6.98 x 13.97 x 2.84)cm
Weight	6.9 oz. (195.61 g)
Operating Temperature	0°C to 70°C (-40°C to 85°C available)
Operating Humidity	10% to 90% (non-condensing)

Antenna

Antenna Connector	Reverse-polarity SMA
Antenna Impedance	50 ohms unbalanced
Approved Antenna	1/2 wave flexible whip (6"), Reverse-polarity SMA, 2.1 dBi gain

Certification

United States	FCC ID: OUR9XTREAM
Canada	# 4214A-9XSTREAM

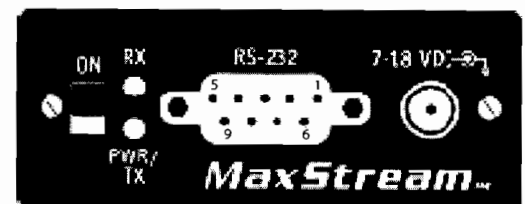
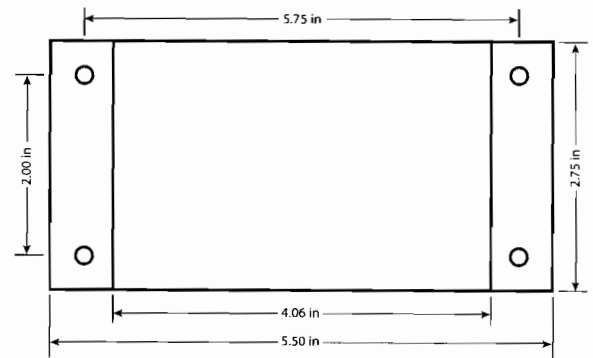
Mechanical Overview

Serial Connector Pinout:

Pin	Signal	Type	Description
1	NC	-	No Connect
2	RXD	Output	Data
3	TXD	Input	Data
4	DTR	Input	Sleep Control
5	SGND	Ground	Common Return
6	NC	-	No Connect
7	RTS	Input	Binary Program Control
8	CTS	Output	Clear to Send Control
9	NC	-	No Connect

Ordering Information

Part Number	Description
X09-009PK	9600 baud transceiver
X09-019PK	19.2 kbaud transceiver



PKG Endplate